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Development of competency based curricula in health professions education

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Competency-based curriculum development

- ▶ *What?* (basic terms and definitions)
- ▶ *Why?* (reasons, advantages, challenges)
- ▶ *How?* (recommendations, procedures, examples)



Competency-based health professions education is an approach that is **fundamentally oriented to graduate outcome abilities** and organized around competencies derived from an analysis of societal and patient needs.

- ❑ **outcomes-oriented**
- ❑ **emphasis on abilities**
- ❑ **flexible time-frames and learning paths**
- ❑ **student-centeredness**

Student-centeredness does not mean „Student as customer“

„Student-centeredness“ means:
focus on the specific needs and differences among the students (different personalities, different learning styles, variable prior knowledge);

the important thing is what student has learned, not what the teacher had thought

Basic terms and definitions



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у свету. Све je izrazitiija nadmoћ transnacionalnih ekonomskih sila, mobilnog finansijskog kapitala i multinacionalnih kompanija nad nacionalnim ekonomijama i drzavama.

Politički karakter globalizacije najčешће podrazumeva dominaciju zapadnih formi političkog života (ponekad se misli isključivo na SAD), krizu meђunarodnog pravnog suvereniteta i unutrašnje legitimnosti nacionalnih drzava, formiranje regionalnih institucija i sve veći uticaj meђunarodnih organizacija.

Kulturni karakter globalizacije ogleda se u tome da vrednosti i ideje zapadne civilizacije preuzimaju ulogu svetske kultura i civilizacija (takozvana vesterнизација).

Globalizaciju pre svega odlikuje ubrzan razvoj mobilne tehnologije. Izbog čega se njen značaj upoređuje sa značajem koji su imali Prva i Druga industrijska revolucija. Razvoj tehnologije, posebno interneta, omogućio je bolju povezanost i olakšao komunikaciju.

Ubrzan protok informacija, kapitala, usluga, proizvodnje i ljudi u svetu uveliko su promenili ulogu i značaj meђudržavnih granica, stvorio je nove političke, ekonomske i kulturne odnose. Svet je danas potpuno drugačiji nego pre trideset godina.

Globalizacija je nezaustavljav proces. I pored pozitivnih promena koje je ona donela, brojni problemi i dalje opteređuju najveći deo sveta – nezaposlenost, prezađuzhenost i ekološke krize.

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ограничења.



The world of today is completely different to what it used to be thirty years ago.

(High School Geography Textbook, 2015)

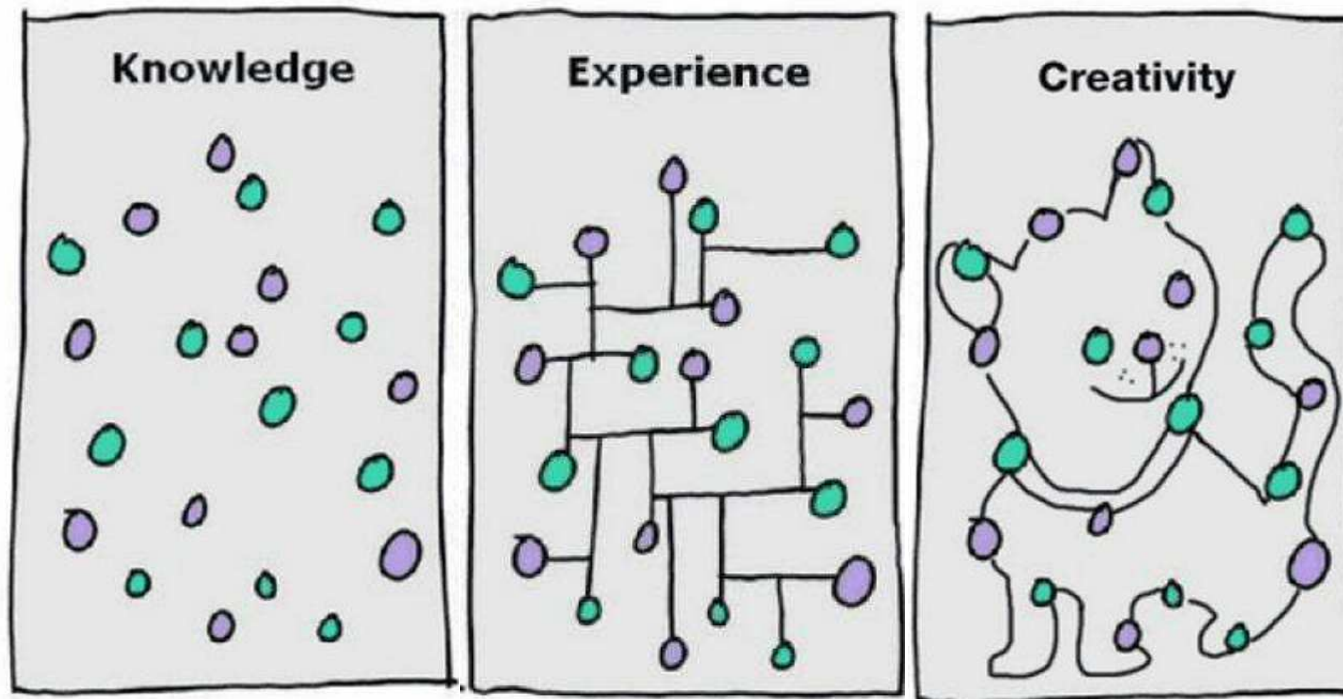
најважнијих проналазак 20. века и синоним глобалног доба, пријатно је рачунарску технологију ставити у обичном човеку.

Микрочипови су на примеру од мобилног телефона, телевизор и ручних сатова до фрижидера, кредитне картице, личних кар

What is different?

- extremely rapid knowledge growth in biomedical sciences
- development and availability of internet and digital technologies
- approach to learning („millennials“)
- societal accountability of higher education
- increased patient safety concerns





„The Knowledge Age“


- The emphasize in education moves from the content to the ability to apply it and create new knowledge; to locate, assess and interpret new information, as well as to self-directed learning



Curriculum development: Traditional approach

- focus on instruction
- learning outcomes defined based on the previously established course content
- traditional teaching and learning (lectures, practical sessions based on the reproduction of pre-defined procedures)
- content-based assessment (written test, essay, oral exam)

Competency-based approach

- focus on learning and relevant outcomes
 - learning outcomes defined as professional activities student is able to perform
 - teaching and learning activities designed to provide fitness to professional practice (active learning, problem-based, work-based)
 - innovative student assessment methods (OSCE, simulated standardized patients)
-
- 

Traditional approach



Competency-based approach



Competency-based curriculum development

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backwards design

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Stage #1: Identify Desired Outcomes/Competencies/Abilities

- competencies are statements of the characteristics that graduating students should demonstrate which indicate they are prepared to perform and function independently in professional practice.
- competencies should represent the integration and application of learned facts, skills and affective qualities needed to serve the patient, community and profession.
- general competency areas with specific competencies in each area and relevant performance criteria
- competencies should be S(pecific)M(easurable)A(chievable)R(elevant)T(ime-bound)
- level of competency should be defined



**Competency frameworks*



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Stage #1: Identify Desired Outcomes/Competencies/Abilities

- competencies developed for a program are not taught in a single course, but rather their components are presented throughout the curriculum and usually several courses assist in the attainment of each competency.
- the early phase of the curriculum consists primarily of mastering foundation facts and basic skills, but by program completion the parts culminate in the higher level application of these concepts in real-practice situations.
- **Importance for experiential curricula development!**
 - to articulate relevant work-based activities
 - to clarify tasks and expectations for students and practice supervisors
 - to evaluate students progress

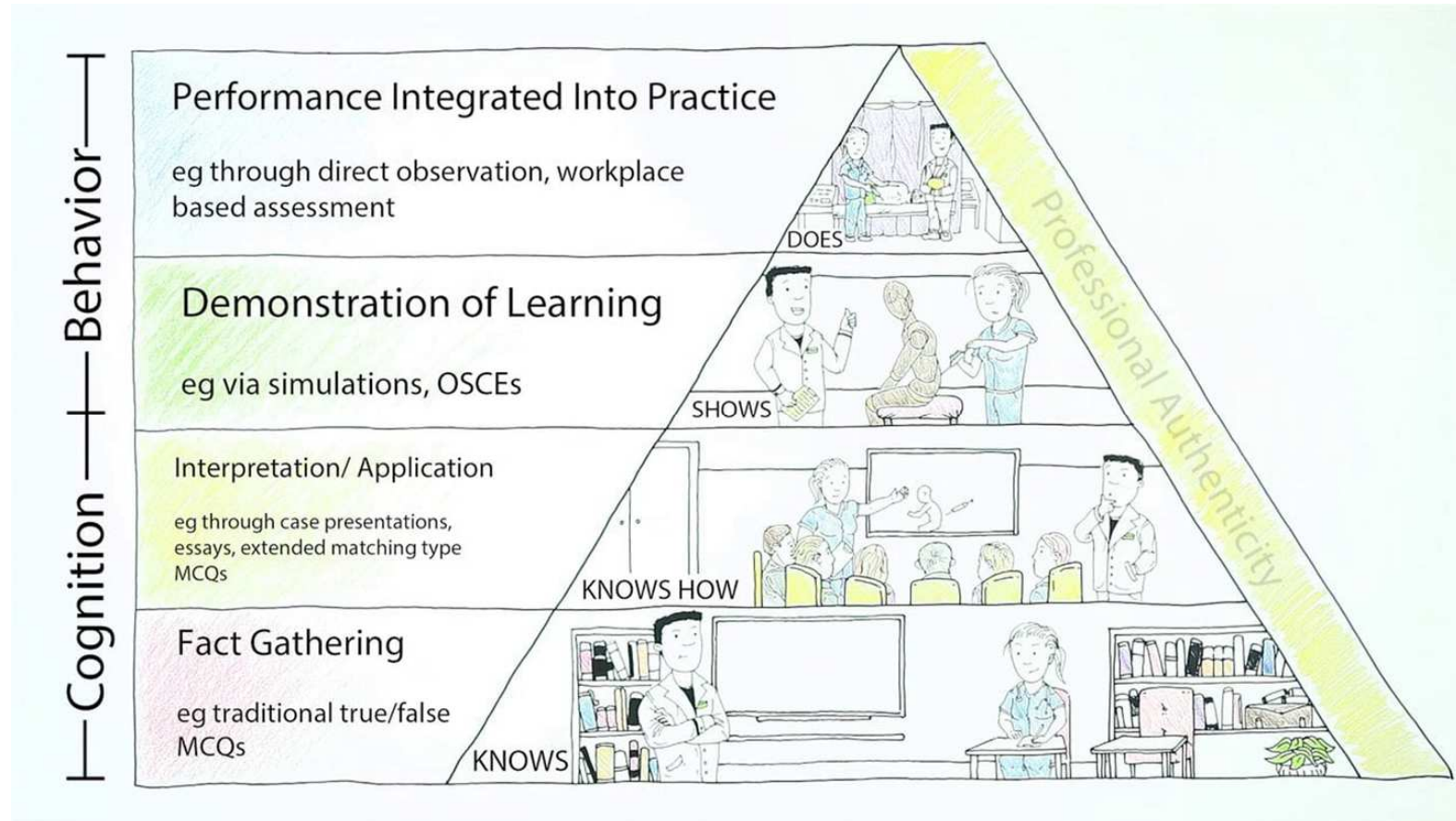


Stage #2: Define Assessment Tasks

- demonstrating clinical competence requires fundamental understanding of scientific principles
- developing clinical teaching approaches, as well as assessment tools, should take into consideration different levels of performance (Miller's Prism of Clinical Competence)
- knowledge level of the assessment should match the knowledge level of the performance criteria (i.e. if you want your students to apply their knowledge but your assessment only asks them to show that they know the information, your students can't show you if they know how to apply it or not)



Stage #2: Define Assessment Tasks



Stage #1: Identify Desired Outcomes/Competencies/Abilities

Broad general statements:

Pharmacy graduates are able to carry out different tasks related to medicines purchase, **compounding** and dispensing of medicines, medical devices and dietary supplements, and provide information related to their safe and effective administration.

After experiential placement, pharmacy student is prepared to **compound medicines** under the **relevant conditions**, using **appropriate equipment and substances in accordance with the recommendations provided in pharmacopeia and national formulary**.

After completing the course, student is able, using relevant literature, to suggest the composition and compounding procedure for different dosage forms.

Stage #2: Define Assessment Tasks

Student shows how different dosage forms are prepared using the equipment and materials relevant to pharmacy practice.

- practical exam with direct observation of students' performance in the simulated environment
- evaluation of factual knowledge and its application, exam grades based on the patient-risk estimation

Stage #3: Design Learning Experience

Interactive lectures, practical sessions including a number of hands-on compounding tasks, extensive problem-based small group discussions and continuous assessment ...

Наслов **Re: Re LIAT-Ph Questionnaire**
Од [REDACTED]@gmail.com>
За Jelena Parojcic <jelena.parojic@pharmacy.bg.ac>
Датум 2013-11-14 18:26

Poštovanje profesorka,

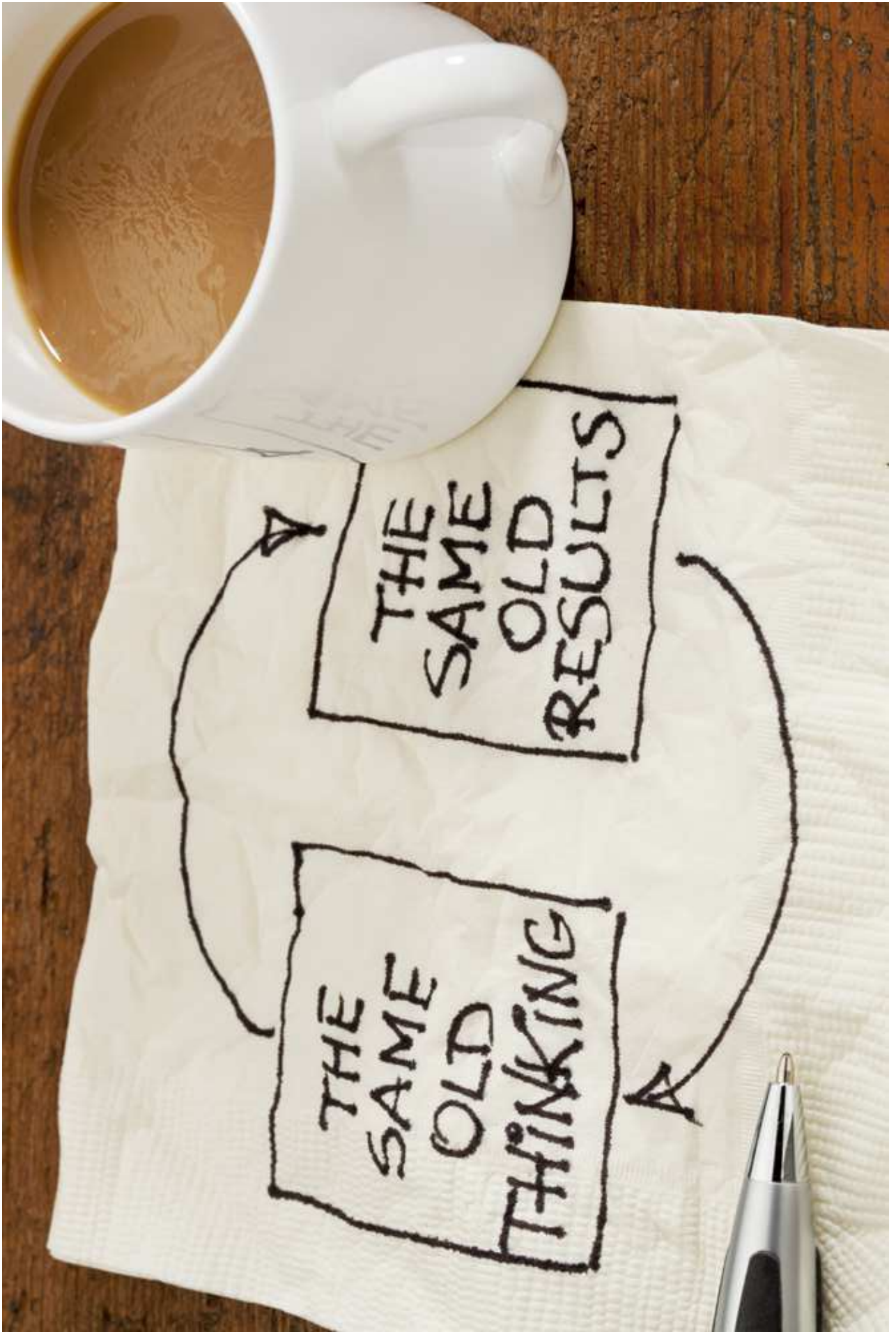
Slobodno mi se obratite za anketu ako mogu da pomognem, studenata.

Upisao sam doktorske studije na [REDACTED] tako da sam sada svaki dan na fakultetu u laboratoriji na [REDACTED]. Vikendom sam u apoteci na stazu (isao sam mesec dana svaki dan u apoteku, pa onda jedno vreme paralelno posto mi je prenaporno bilo dogovorio sam se da idem samo vikendom). Ne znam da li cu raditi sa tom licencom, prosto mi je bilo zao da ne udjem u apoteku. [REDACTED]

Mogu vam reci iz svog iskustva, a i iz iskustva moje sestre i puno kolega da smo mi apsolutno osposobljeni za magistralnu i galensku izradu, bukvalno od prvog dana staža to je jedino što možemo da radimo bez ikakve dileme.

Puno pozdrava, [REDACTED]

“Based on my experience, as well as the experience of my sister and many other colleagues, I can tell you that we are prepared to compound medicines, from the first day of internship, it is the only thing we can do without any dilemma.”



THE
SAME
OLD
THINKING

THE
SAME
OLD
RESULTS